

**UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF NORTH CAROLINA
CHARLOTTE DIVISION**

BRUCE RHYNE and JANICE
RHYNE,

Plaintiffs,

v.

UNITED STATES STEEL
CORPORATION, et al.,

Defendants.

Civil Action No.: 3:18-cv-00197

**MEMORANDUM OF LAW IN SUPPORT OF DEFENDANT
SAFETY-KLEEN SYSTEMS, INC.'S MOTION TO EXCLUDE
THE TESTIMONY, OPINIONS, AND REPORT OF DR. ROBERT HARRISON**

Defendant SAFETY-KLEEN SYSTEMS, INC. ("Safety-Kleen") submits this Memorandum of Law in Support of its Motion pursuant to Federal Rule of Evidence 702 and *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993) To Exclude the Testimony, Opinions, and Report of Plaintiffs' expert Dr. Robert Harrison, and joins in the Motion to Exclude the Testimony, Opinions, and Report of Dr. Robert Harrison (the "Motion") filed by co-defendant UNITED STATES STEEL CORPORATION ("US Steel"). Safety-Kleen hereby incorporates, as if fully set forth herein, all of the arguments contained in UNITED STATES STEEL CORPORATION'S ("US Steel") Motion and Memorandum In Support Of Its Motion To Exclude The Testimony, Opinions and Report Of Plaintiffs' Expert Robert Harrison, M.D.

In addition to the arguments set forth in US Steel's Motion, which are incorporated as if fully set forth herein, Safety-Kleen's motion to exclude Dr. Harrison should be granted because Dr. Harrison's testimony relates to whether benzene may cause acute myeloid leukemia ("AML"), not whether any of the Defendants' specific products at issue in this product liability case are

capable of causing AML. Additionally, he relies on two wholly inapplicable studies to support his opinion. Because Dr. Harrison's testimony focuses on an issue that is irrelevant to this litigation, and relies on irrelevant studies, his testimony will not assist the jury and his testimony should be excluded.

FACTUAL BACKGROUND

Plaintiffs Bruce Rhyne and Janice Rhyne allege that Plaintiff Bruce Rhyne was exposed to benzene contained in a dozen different Defendants' products and ingredients from 1970 to 2015, and that these exposures caused Mr. Rhyne to develop AML. *See* Exhibit 1, Plaintiffs' Complaint ("Compl."), ¶¶ 19-22. While the totality of Mr. Rhyne's alleged exposure includes benzene, toluene, xylene, mineral spirits, naphtha, heptanes, petroleum distillates, acetone, polycyclic aromatic hydrocarbons, raffinate and ethylene compounds, *see* Compl., ¶ 21, Plaintiffs' claims against Defendant Safety-Kleen are far more limited. Plaintiffs allege that Mr. Rhyne was exposed to benzene associated with Safety-Kleen's 105 Solvent ("105 Solvent"), a mineral-spirits based solvent. *See* Exhibit 1, Compl., ¶ 27; Exhibit 2, Answers and Objections to Interrogatories of Defendant Safety-Kleen Company Addressed to Plaintiffs, Interrogatory No. 6.

Plaintiffs' medical causation expert, Dr. Robert Harrison, has opined in this matter that Mr. Rhyne's AML was caused by his use of and exposure to the benzene contained in Defendants' products or solvents.

ARGUMENT

I. DR. HARRISON IGNORES MR. RHYNE'S ACTUAL ALLEGED EXPOSURE TO DEFENDANTS' PRODUCTS

This is a products liability action involving alleged exposure to Safety-Kleen's 105 Solvent, a mineral spirit, and other products. *See* Exhibit 1, Compl. ¶¶ 24, 27. As such, the relevant inquiry for Dr. Harrison is whether mineral spirits, the composition of Safety-Kleen solvent (*see*

Exhibit 3, Harrison Dep. Tr. at 186:15-17), or other products (*see* Exhibit 4, Harrison Report at 6) caused Plaintiff's AML; factually, legally, and scientifically, the inquiry is **not** whether benzene caused Plaintiff's AML. *See Henricksen v. ConocoPhillips Co.*, 605 F. Supp. 2d 1142, 1156 (E.D. Wash. 2009) (excluding plaintiff's expert for evaluating benzene in lieu of gasoline on the basis that "[t]his is a products liability action and Defendant's product is gasoline."); *see also* Exhibit 5, *Burst v. Shell Oil Co.*, No. CIV.A. 14-109, 2015 WL 3755953, at *9 (E.D. La. June 16, 2015), *aff'd*, 650 Fed. Appx 170 (5th Cir. 2016) ("But here, Mr. Burst allegedly sustained exposure to gasoline containing benzene, not pure benzene or any other substance containing benzene. **The question here, therefore, is whether exposure to gasoline containing benzene can cause AML, not whether exposure to benzene generally can cause AML.**") (emphasis added). Nevertheless, like Dr. Gore and Dr. Infante, Dr. Harrison ignores the distinction between benzene and Defendants' products in favor of solely evaluating benzene. *See* Exhibit 3, Harrison Dep. Tr. at 40:7-12 ("Mr. Rhyne was at high risk of developing AML as a result of his exposure to benzene over the years he worked at Duke Power . . .").

Federal courts have consistently rejected this attempted sleight of hand. In *Henricksen*, for example, the court stated, "[i]t is undisputed that Henricksen's exposure was to the mixture gasoline, not simply to the substance benzene. **Benzene and gasoline . . . are not one in the same product . . . the court cannot simply presume that the qualitative toxic and carcinogenic effects of benzene from any source are the same.**" 605 F. Supp. 2d at 1156 (emphasis added) (excluding plaintiff's causation expert); *see also Rider v. Sandoz Pharm. Corp.*, 295 F.3d 1194, 1201 (11th Cir. 2002) ("Even minor deviations in chemical structure can radically change a particular substance's properties and propensities.").

The fallacy in Dr. Harrison's method is on vivid display in his report and deposition, where he repeatedly ignores the distinctions between mineral spirits and benzene. For example, his report states:

It is generally accepted in the scientific community that benzene or the various products that contain benzene are causes of AML. One of the most authoritative scientific bodies on the carcinogenic risk of chemicals—the World Health Organization International Agency for Research on Cancer (IARC)—has published over four decades *The Monographs on the Evaluation of Carcinogenic Risk to Humans* . . . Overall, the **IARC Working Group found that benzene is carcinogenic** to humans.

Exhibit 4, Harrison Report at 8-9 (emphasis added). When asked at deposition if IARC ever classified mineral spirits as a carcinogen, **Dr. Harrison admitted that IARC had insufficient evidence to classify mineral spirits as a carcinogen.** See Harrison Dep. Tr. at 138:3-8.

Dr. Harrison's report fails to refer to mineral spirits or any other products in the other agency classifications listed in his report. To illustrate, Dr. Harrison's report states that The National Institute for Occupational Safety and Health (NIOSH) classifies benzene as a carcinogen, but his report is silent on mineral spirits or any other products. Harrison Report at 10-11. At deposition, Dr. Harrison demonstrated why: **he admitted that NIOSH does not classify mineral spirits as a carcinogen.** See Exhibit 3, Harrison Dep. Tr. 138:21-24. Dr. Harrison's report also states that OSHA classifies benzene as a carcinogen, and is again silent on mineral spirits and other products. Exhibit 4, Harrison Report at 11. Here again, Dr. Harrison testimony was illuminating: **he admitted at deposition that OSHA has never regulated mineral spirits as a workplace carcinogen.** Exhibit 3, Harrison Dep. Tr. at 138:25-139:2. While Dr. Harrison may ignore the distinction between benzene and mineral spirits, such a practice is unsound, as "the court cannot simply presume that the qualitative toxic and carcinogenic effects of benzene from any source are the same." *Burst*, 2015 WL 3755953, at *10 (quoting *Henricksen*, 605 F.Supp.2d at 1156).

The basis for Dr. Harrison's decision to ignore the products at issue here is evident from a review of his authorities. Despite citing hundreds of studies in his report, **Dr. Harrison is unable to point to a single study that shows mineral spirits causes AML.**

Q. And can you, as you sit here today, identify for me any epidemiological study that has found mineral spirits to be – or found a statistically significant excess of AML in workers exposed to mineral spirits?

A. As I sit here today, no.

Exhibit 3, Harrison Dep. Tr. at 130:17-21. Dr. Harrison's testimony establishes a classic scenario for exclusion: in *Burst v. Shell Oil Co.*, the Fifth Circuit affirmed the exclusion of plaintiff's causation expert on effectively this exact issue. 650 Fed. Appx. at 174 (affirming exclusion of plaintiff's expert for focusing his opinions on benzene exposure instead of gasoline exposure). Additionally, in excluding plaintiff's causation expert in *Henricksen*, the court broke down the expert's reasoning to expose its fallacy, and the parallels here are unmistakable. There, the court noted that the expert's "methodology in reaching this conclusion is as Defendant describes: Henricksen has AML; Henricksen worked as a tanker truck driver loading and unloading gasoline; gasoline contains benzene; therefore Henricksen's AML was caused by exposure to gasoline." *Henricksen*, 605 F. Supp. 2d at 1161. The court excluded plaintiff's expert because "benzene and gasoline . . . are not one in the same product . . . the court cannot simply presume that the qualitative toxic and carcinogenic effects of benzene from any source are the same." *Id.* at 1156.

Dr. Harrison's reasoning is circular and flawed: he posits that Mr. Rhyne has AML; Mr. Rhyne was exposed to mineral spirits; mineral spirits contain some benzene; benzene can cause AML; therefore, mineral spirits caused Mr. Rhyne's AML. Exhibit 3, Harrison Dep. Tr. at 134:10-19. This methodology contains the same failings as in *Henricksen* (benzene and mineral spirits are not one in the same product). The result should be the same: Dr. Harrison should not be permitted to testify. 605 F. Supp. 2d at 1156.

II. Dr. Harrison Relies on Inapplicable Studies Related To Low-Dose Benzene Exposure

Dr. Harrison relies on a mere handful of studies to support his opinion that low doses of benzene can cause AML. Of those, at deposition he cited two in particular: the Stenehjem and Kirkeleit studies. *See* Exhibit 3, Harrison Dep Tr. at 166:1-3 (“The so-called low-dose studies, which I cited earlier, demonstrate that as little as 1 part per million years – and that’s in the Stenehjem and Kirkeleit studies.”). Dr. Harrison’s reliance on these studies is misplaced for two reasons: (1) the studies do not relate to mineral spirits; and (2) the cited studies do not support Dr. Harrison’s opinion that low-dose benzene exposures can cause AML.

The Kirkeleit (2008) study referenced by Dr. Harrison was an historical cohort study (comparative analysis of data on similar groups) of Norway petroleum workers extracting crude oil and natural gas from the earth and participating in service activities incidental to extraction. Exhibit 6, Kirkeleit, et al., *Increased risk of acute myelogenous leukemia and multiple myeloma in a historical cohort of upstream petroleum workers exposed to crude oil*, 19 Cancer Causes Control 13, 13-14 (2008). The study explicitly states, “it is unclear at which level of exposure benzene poses an increased risk of developing hematologic neoplasms [i.e. leukemia].” Exhibit 6, Kirkeleit, *supra*, at 17. Furthermore, the Kirkeleit study focuses entirely on benzene from crude oil, and does not mention mineral spirits; the study was clear that “we do not have any objective data on a possible additional exposure through the use of benzene as a degreasing agent,” such as through the use of mineral spirits. *See* Exhibit 6, Kirkeleit, *supra*, at 17; *see also* Exhibit 7, Bruce Rhyne Dep. Tr. at 610:9-611:4 (testifying that he used a Safety-Kleen parts washer in a nuclear power plant to clean motor parts, studs, and bolting).

The Kirkeleit study also emphasized “a major limitation” as the “lack of good exposure estimates including information on the variability of benzene exposure.” Exhibit 6, Kirkeleit,

supra, at 17. The only statistically significant association between benzene and hematologic neoplasms (such as AML) observed was for workers whose only job is to extract crude oil and natural gas on offshore installations. *Id.* at 18. Lastly, the study indicated that other factors, like radiation exposure (such as Mr. Rhyne testified, Exhibit 7, Bruce Rhyne Dep. Tr. at 115:19-117:20), could have contributed to the increased risk of AML observed among petroleum workers. Exhibit 6, Kirkeleit, *supra*, at 20.

The Kirkeleit study, on its face, lacks an exposure estimate. *Id.* at 17. Notably, Dr. Harrison has previously been excluded, in part, for his reliance on studies precisely like this, that did not quantify exposure. See Exhibit 8, *Konrick v. Exxon Mobil Corp.*, No. CV 14-524, 2016 WL 439361, at *8 (E.D. La. Feb. 4, 2016), *aff'd*, 670 F. App'x 222 (5th Cir. 2016) (“Dr. Harrison’s reliance on studies that do not quantify exposure levels is equally problematic.”). In addition, a major reason for Dr. Harrison’s exclusion in *Konrick* was his reliance on studies discussing substances the plaintiff was never exposed to. 2016 WL 439361, at *8. Despite his previous preclusion in *Konrick*, here, Dr. Harrison has presented the same flawed analysis. Mr. Rhyne was never exposed to crude oil, and even if he was, neither Safety-Kleen nor US Steel are alleged to be responsible for that exposure. Kirkeleit is inapposite.

The other study Dr. Harrison cites in support of his opinion that low doses of benzene can cause AML is Exhibit 9, Stenehjem, et al., *Benzene exposure and risk of lymphohaematopoietic cancers in 25 000 offshore oil industry workers*, 112 British Journal of Cancer 1603 (2015). Like Kirkeleit (2008), Stenehjem (2015) studied petroleum workers extracting crude oil and natural gas. *Id.* at 1603-04. Stenehjem (2015) did not find a statistically significant increase in risk of lymphohematopoietic cancer groups (including AML) from benzene exposure and stated, “[r]isk estimates were consistently elevated among the exposed workers for most LH

[lymphohematopoietic] cancer groups, except for DLBCL, **but none were statistically significant.**” *Id.* at 1607-08. (emphasis added). Further, “[t]he risk of AML increased with increasing cumulative peak exposure, but **the trend test was not statistically significant** (P trend 0.166).”

Here again, Dr. Harrison has followed the same path that lead to his exclusion in *Konrick*. In that case, the court explicitly chastised Dr. Harrison for his reliance on studies that did not demonstrate statistical significance. *Konrick*, 2016 WL 439361, at *9. Specifically, the court stated that “[a]nother weakness in Dr. Harrison's methodology is his reliance on studies exhibiting results that do not reach statistical significance.” *Id.* The court, quoting appellate precedent, noted that “**showing a statistically insignificant increase in disease incidence following exposure to the alleged causal chemical can properly be rejected by the district court** as a foundation for the expert’s opinion.” *Id.* (quoting *LeBlanc ex rel. Estate of LeBlanc v. Chevron USA, Inc.*, 396 F. App’x 94, 99 (5th Cir. 2010); see *Burst*, 2015 WL 3755953, at *6 (“Courts have excluded expert opinions on causation based on epidemiologic and other scientific studies for a number of reasons. First, studies that ‘do not represent statistically significant results’ may not provide a reliable foundation for an epidemiologist’s general causation opinion in a toxic torts case.”)).

In *Konrick*, Dr. Harrison opined that plaintiff’s exposure to benzene at a refinery caused her to suffer fetal demise and stillbirth delivery. The court excluded Dr. Harrison “because he relies on multiple studies that do not reliably support his conclusion.” 2016 WL 439361, at *7. Dr. Harrison has opted to follow the same pathway in this matter as he did in *Kornick*, and rely on studies that do not support his opinions. The same result should follow: Dr. Harrison should be excluded.

III. CONCLUSION

For the reasons set forth above, and for the reasons set forth in the Motion and Memorandum of Law of Defendant United States Steel Corporation in Support of Its Motion to Exclude the Testimony, Opinions, and Report of Dr. Robert Harrison, which are incorporated as if fully set forth herein, Defendant Safety-Kleen Systems, Inc. respectfully requests that the Court enter an Order excluding the testimony, opinions, and report of Plaintiffs' expert Dr. Robert Harrison.

Respectfully Submitted this 7th day of April, 2020.

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CERTIFICATE OF SERVICE

This is to certify that the undersigned counsel has this date filed **MEMORANDUM OF LAW IN SUPPORT OF MOTION TO EXCLUDE DR. ROBERT HARRISON** with the Court using the CM/ECF system which will send notification of such filing to all counsel of record.

This the 7th day of April, 2020.

By: /s/ Peri A. Berger
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